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AGE, GROWTH, MATURATION AND PARASITE OCCURRENCE OF
PACIFIC HERRING (Clupea pallasii) FROM SOUTHEASTERN
ALASKA, 1974 THROUGH 1976

By:
Dennis Blankenbeckler

1978

ALASKA DEPARTMENT OF FISH AND GAME
Support Building, Juneau, Alaska 99801

Ronald O. Skoog
Commissioner

ADF&G TECHNICAL DATA REPORTS

This series of reports is designed to facilitate prompt reporting of data from studies conducted by the Alaska Department of Fish and Game, especially studies which may be of direct and immediate interest to scientists of other agencies.

The primary purpose of these reports is presentation of data. Description of programs and data collection methods is included only to the extent required for interpretation of the data. Analysis is generally limited to that necessary for clarification of data collection methods and interpretation of the basic data. No attempt is made in these reports to present analysis of the data relative to its ultimate or intended use.

Data presented in these reports is intended to be final, however, some revisions may occasionally be necessary. Minor revision will be made via errata sheets. Major revisions will be made in the form of revised reports.

AGE, GROWTH, MATURATION AND PARASITE OCCURRENCE OF
PACIFIC HERRING (*Clupea pallasii*) FROM SOUTHEASTERN ALASKA,
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By

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INTRODUCTION

This represents the fifth in a series of reports designed to annually discuss conditions of Southeastern Alaska herring, *Clupea pallasii*, stocks as determined by age composition and recruitment within those stocks. The format of this report is intended to provide the basis for the discussion of stock trends as additional year's data are acquired.

METHODS

Collection of Herring

Herring for age and growth analysis were collected by several methods. The herring from the commercial purse seine fishery provided most of the samples, with those fish being collected from the processors at the location the catch was landed. Some herring were collected on the spawning grounds just prior to or during active spawning by a small purse seine, commercial gillnet or a variable mesh gillnet.

When the variable mesh gillnet was used, it was set for a very short period of time to help prevent saturation of any particular mesh size. When possible, repeated sets were made until a sufficient sample was obtained. All fish were frozen for later examination in the laboratory.

Laboratory Methods

In the laboratory herring were thawed immediately prior to examination. The length of each fish from the tip of the snout to the caudal peduncle was recorded to the nearest whole millimeter on a caliper measuring board. The weight was taken from an electronic balance to the nearest whole gram. Sex was determined by dissection and a readable (non-regenerated) scale was selected for age determination.

Scales were cleaned and dipped in a solution of 10% mucilage glue and water and placed unsculptured side down for permanent mounting on glass slides. Aging was done using a dissecting microscope varying the light source for optimum image of annuli. Scale reading results were spot checked by a second reader for verification. The fish were assigned an anniversary date for each complete growing season. All samples collected were taken after growth had resumed in the spring. For example, if a herring was hatched in the spring of 1972 and collected in the fall of 1973, two growing seasons occurred with the fish recorded as age two. If the herring

had been collected in the spring of 1974 (before growth had resumed), it still would have been recorded as age two.

All scales and original data are filed and available for review upon request.

An index for maturity and incidence of nematodes was recorded on every fifth herring from the sample (Table 1).

RESULTS

A computer program was initiated in 1976 to compile sampling data. Sampling areas are shown in Figures 1a - 1d. The results are summarized in the following Appendix Tables. Appendix Table 1 summarizes the following:

1. Sampling area and statistical fishing area.
2. Sampling date and gear used.
3. Frequency represented by age group and year class.
4. Average length and weight for males, females and combined sexes by age group and year class, including standard variation.
5. Mean sample length and weight for males, females and combined sexes, including standard deviation.
6. Sex composition of sample.
7. Maturity code.
8. Nematode code.

Appendix Table 2 summarizes percent age composition by age group from 1970 to 1976 for each sampling location.

Table 1. Summary of maturity and nematode indexes used for Pacific herring samples in Southeastern Alaska, 1974 through 1976.

<u>Coding</u>	<u>Stage</u>	MATURITY STAGES
1	I*	Virgin herring. Gonads very small, thread-like, 2-3mm broad. Ovaries wine red. Testes whitish or grey-brown.
2	II	Virgin herring with small sexual organs. The height of ovaries and testes about 2-8mm. Eggs not visible to naked eye but can be seen with magnifying glass. Ovaries a bright red color; testes a reddish grey color.
3	III	Gonads occupying about half of the ventral cavity. Breadth of sexual organs between 1 and 2 cm. Eggs small but can be distinguished with naked eye. Ovaries orange; testes reddish grey or greyish.
4	IV	Gonads almost as long as body cavity. Eggs larger, varying in size, opaque. Ovaries orange or pale yellow; testes whitish.
5	V	Gonads fill body cavity. Eggs large, round; some transparent. Ovaries yellowish; testes milkwhite. Eggs and sperm do not flow, but sperm can be extruded by pressure.
6	VI	Ripe gonads; eggs transparent; testes white; eggs and sperm flow freely.
7	VII	Spent herring. Gonads baggy and bloodshot. Ovaries empty or containing only a few residual eggs. Testes may contain remains of sperm.
8	VIII	Recovering spents. Ovaries and testes firm and larger than virgin herring in Stage II. Eggs not visible to naked eye. Walls of gonads straited; blood vessels prominent. Gonads wine red color. (This stage passes into Stage III.)

*When sex is undeterminate, code maturity as #1.

NEMATODE INDEX

- | | |
|---|-----------------------------------|
| 1 | No nematodes in abdominal cavity. |
| 2 | 1-10 nematodes. |
| 3 | 11-20 nematodes. |
| 4 | 21-30 nematodes |
| 5 | 31 and over. |

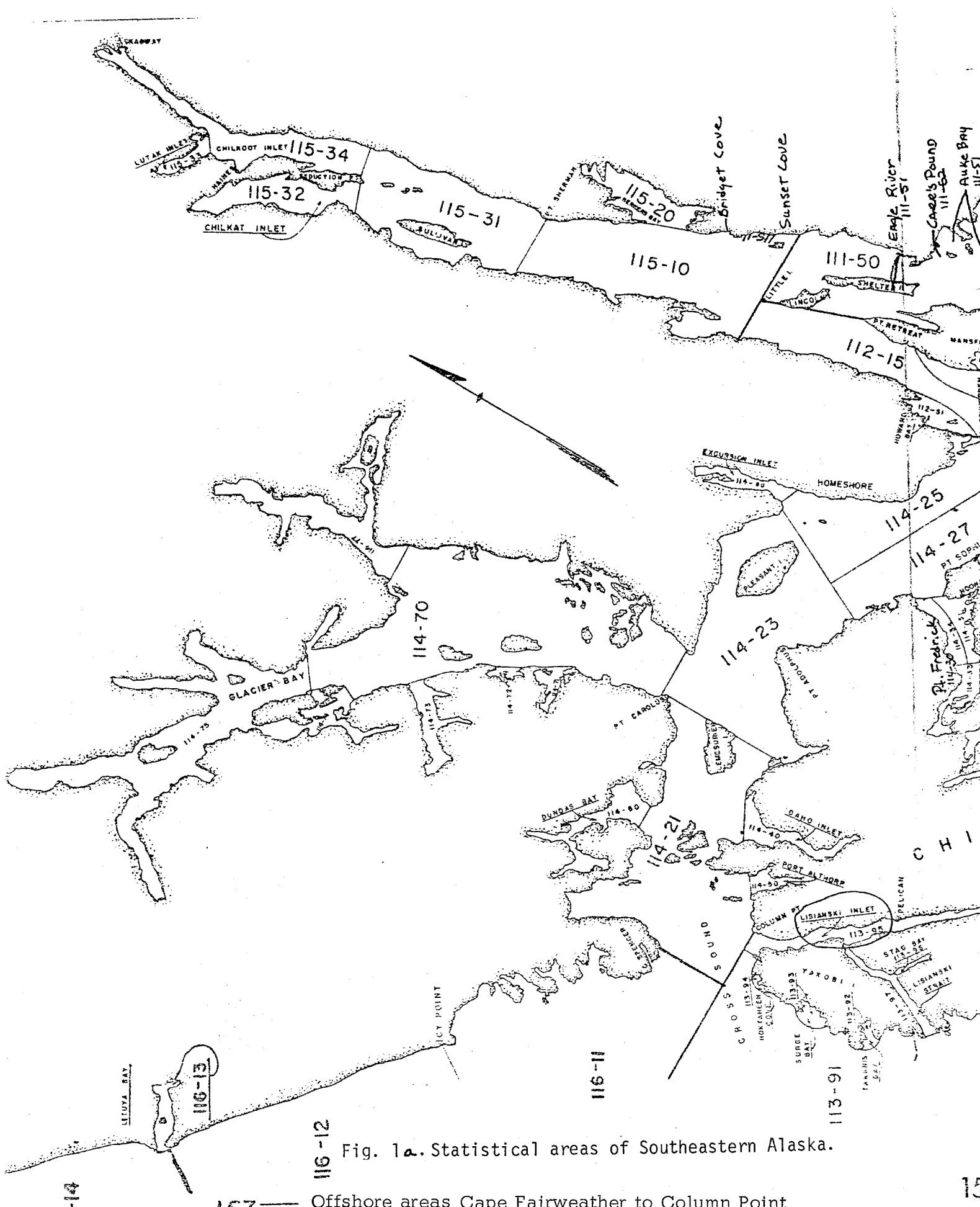


Fig. 1a. Statistical areas of Southeastern Alaska.

Offshore areas Cape Fairweather to Column Point including Fairweather Grounds.

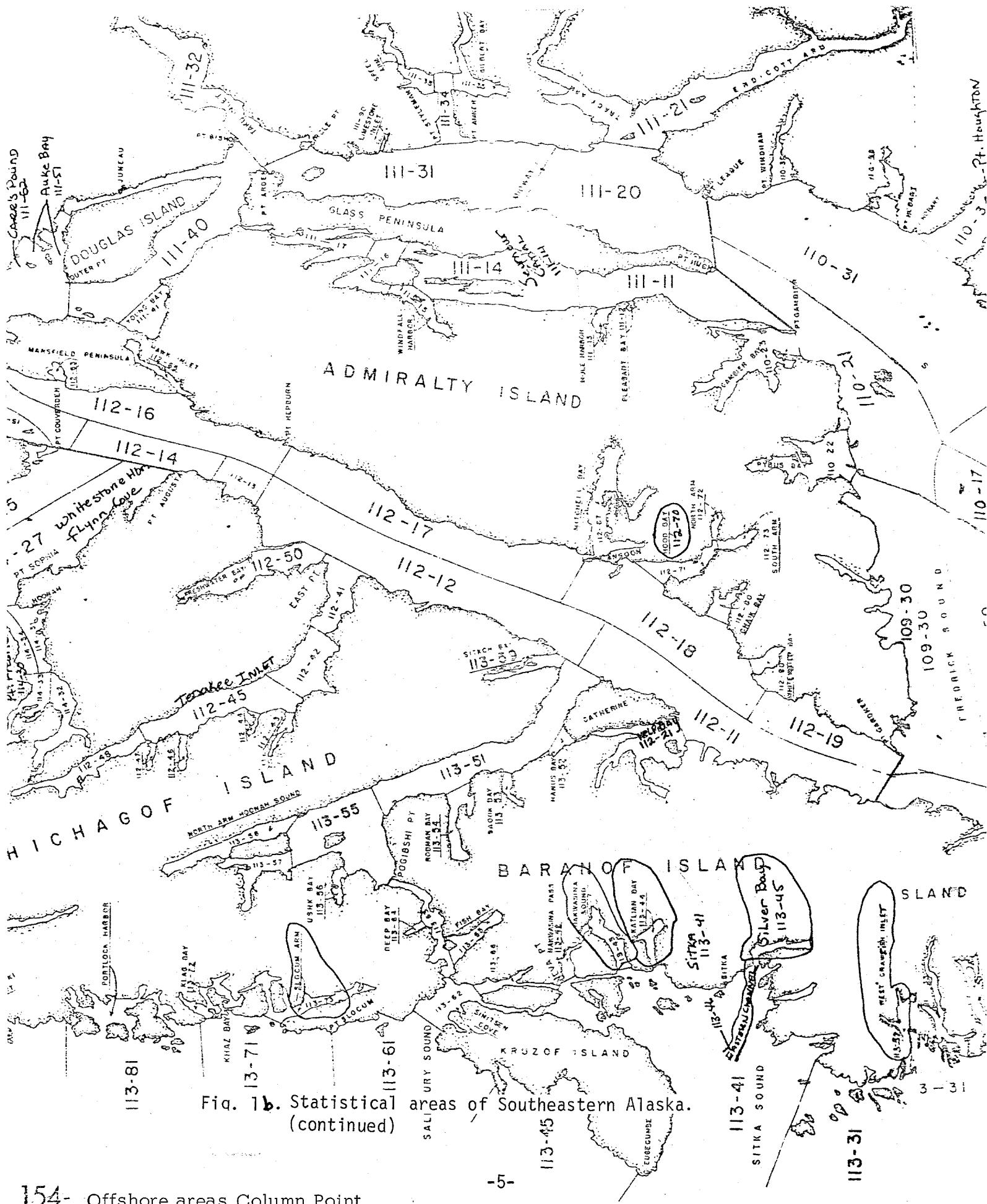


Fig. 1b. Statistical areas of Southeastern Alaska.
(continued)

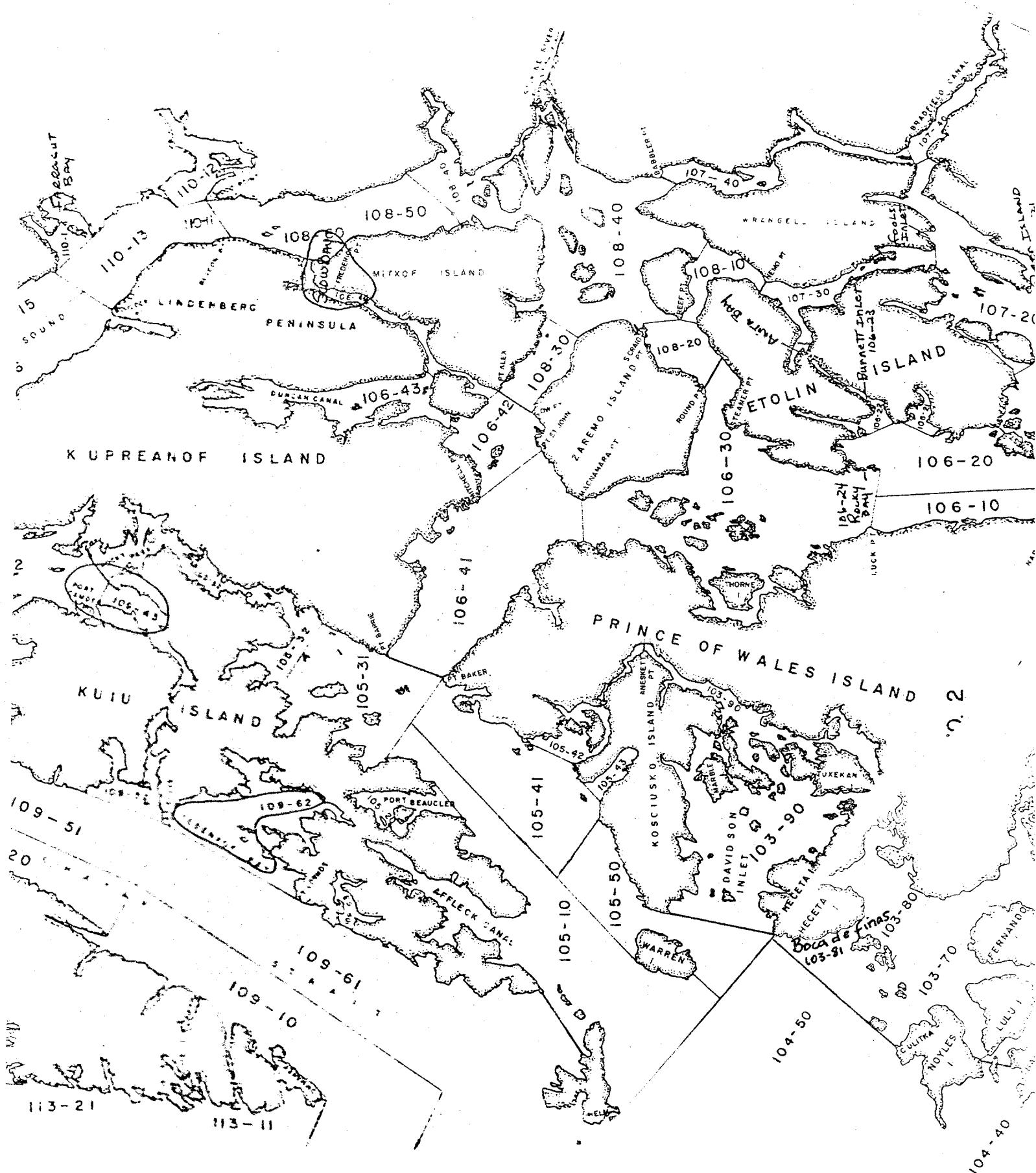


Fig. 1c. Statistical areas of Southeastern Alaska. (continued)

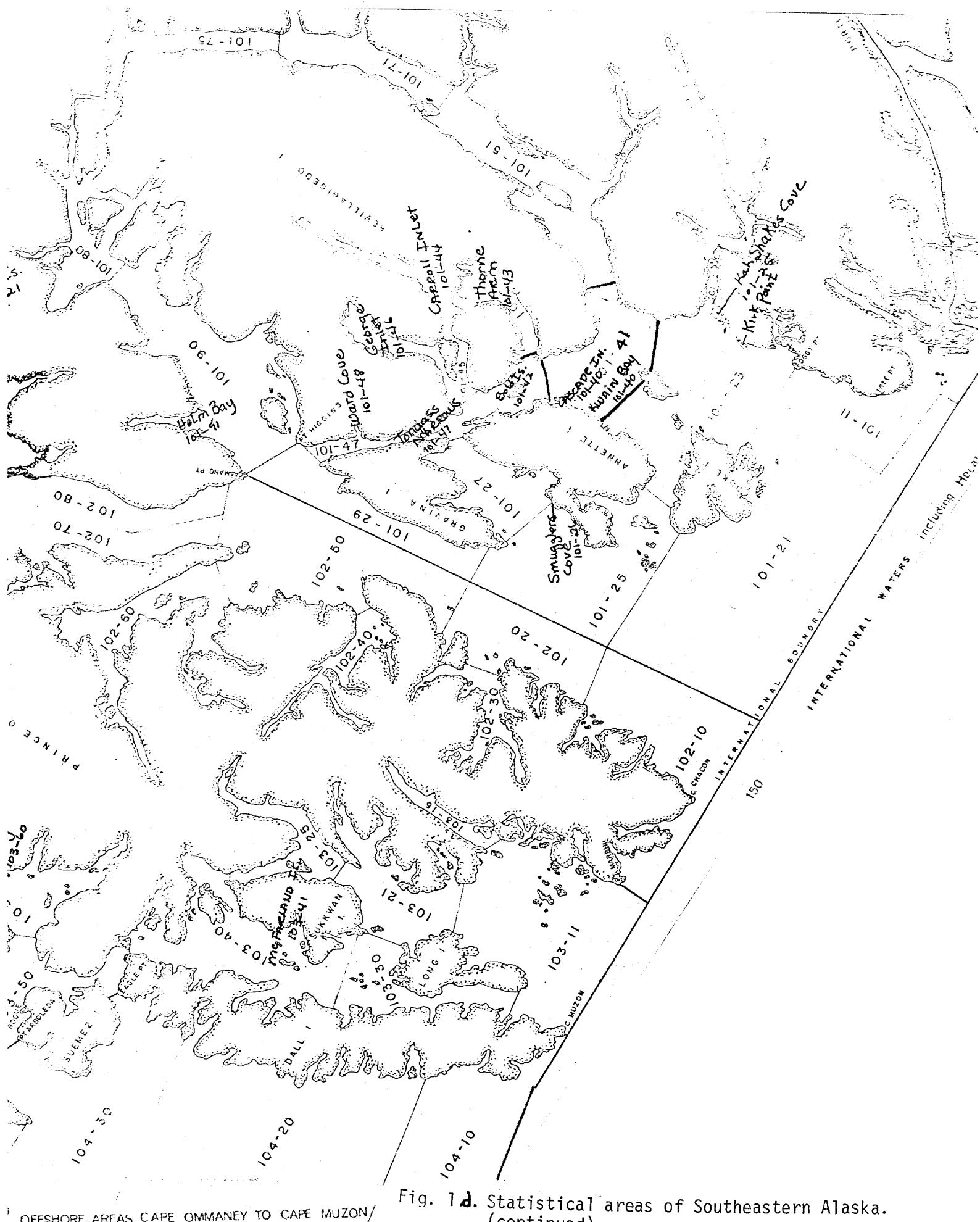


Fig. 1d. Statistical areas of Southeastern Alaska.
(continued)

OFFSHORE AREAS CAPE OMMANEY TO CAPE MUZON

ACKNOWLEDGMENTS

The author wishes to acknowledge the competent help of Elaine Dinneford and Sherry Sheng in carrying out the computer data analysis. Acknowledgment is also extended to Tom Copeland, Leo Barlow, Tom Gaffney and David Street for laboratory age and growth, maturity and parasite incidence analysis. Acknowledgment is also extended to Sharon Peterson for assistance in preparing the report and to Gary Gunstrom for his constructive criticism.

APPENDIX

Appendix Table 1. Summary of herring biological sampling statistics for Southeastern Alaska collected in 1974-76.

Kirk Point, 101-25
3-30-76
Variable Mesh Gillnet

PERCENT AGE COMPOSITION

Age Group	Year Class	Males			Females			Sexes Combined				
		Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.	Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.	
II												
III	1972	1	0.7	204 ± 0	101 ± 0		0		204 ± 0	101 ± 0		
IV	1971	2	1.5	198 ± 11	111 ± 20		1	1.0	209 ± 18	209 ± 18	136 ± 39	
V	1970	17	12.6	215 ± 8	140 ± 15		23	24.2	220 ± 10	160 ± 25	218 ± 10	152 ± 23
VI	1969	92	68.2	221 ± 10	159 ± 25		47	49.5	230 ± 12	187 ± 33	224 ± 11	169 ± 31
VII	1968	12	8.9	223 ± 9	166 ± 23		14	14.7	234 ± 13	214 ± 36	229 ± 13	192 ± 39
VIII	1967	9	6.7	245 ± 14	223 ± 45		6	6.3	241 ± 8	232 ± 33	243 ± 12	227 ± 41
IX	1966	2	1.5	233 ± 7	203 ± 38		3	3.2	240 ± 12	228 ± 46	237 ± 10	218 ± 45
X	1965	0					1	1.0	253 ± 0	236 ± 0	253 ± 0	236 ± 0
XI												
XII												
XIII												
XIV												
Totals		135			95							
Means ± S.D.				222 ± 13	161 ± 33				229 ± 13	189 ± 39	225 ± 13	173 ± 38

Sex Composition 58.7 % Males and 41.3 % Females

Average Maturity Code = 4.93

Average Nematode Frequency Code = 2.44

Bullhead Cove, 101-25

4-2-76

Set Gillnet

Appendix Table 1 continued.

PERCENT AGE COMPOSITION

Age Group	Year Class	Males			Females			Sexes Combined	
		Frequency No.	Frequency %	Mean ± S.D. Length mm	Weight gm	Mean ± S.D. Length mm	Weight gm	Mean ± S.D. Length mm	Weight gm
II									
III									
IV	1971	0							
V	1970	19	26.4	224 ± 6	153 ± 17	2 4.0	218 ± 4	150 ± 14	218 ± 4
VI	1969	34	47.2	226 ± 11	160 ± 24	7 14.0	229 ± 6	163 ± 21	226 ± 6
VII	1968	15	20.8	230 ± 11	167 ± 28	22 44.0	230 ± 7	168 ± 21	228 ± 10
VIII	1967	1	1.4	232 ± 0	187 ± 0	12 24.0	232 ± 11	171 ± 28	231 ± 11
IX	1966	3	4.2	248 ± 7	218 ± 23	5 10.0	239 ± 11	183 ± 15	238 ± 10
X						2 4.0	232 ± 0	188 ± 4	242 ± 10
XI									
XII									
XIII									
XIV									
Totals		72				50			
Means ± S.D.				228 ± 11	163 ± 27		231 ± 9	169 ± 23	229 ± 10
									165 ± 26

Sex Composition 59.0 % Males and 41.0 % Females

Average Maturity Code = 5.44

Average Nematode Frequency Code = 2.32

Appendix Table 1 continued.

Thorne Arm, 101-43
10-9-74
Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D. Length mm	Weight gm		Frequency No.	Mean ± S.D. Length mm	Weight gm		Mean ± S.D. Length mm	Weight gm
II	1973	1	0.68	158 ± 0	61 ± 0	1	0.72	184 ± 0	104 ± 0	171 ± 13	83 ± 21
III	1972	7	4.76	169 ± 8	78 ± 12	8	5.80	184 ± 23	103 ± 46	177 ± 19	91 ± 37
IV	1971	33	22.45	184 ± 9	100 ± 14	25	18.12	182 ± 11	97 ± 22	183 ± 10	98 ± 18
V	1970	75	51.02	190 ± 10	115 ± 22	77	55.80	190 ± 12	111 ± 25	190 ± 11	113 ± 24
VI	1969	14	9.52	199 ± 14	134 ± 36	11	7.97	198 ± 10	134 ± 32	198 ± 12	134 ± 34
VII	1968	10	6.80	212 ± 17	167 ± 40	8	5.80	220 ± 12	179 ± 29	216 ± 16	173 ± 36
VIII	1967	4	2.72	212 ± 2	173 ± 11	6	4.35	223 ± 10	182 ± 19	218 ± 10	178 ± 17
IX	1966	0				2	1.45	225 ± 14	187 ± 18	225 ± 14	187 ± 18
X	1965	1	0.68	224 ± 0	167 ± 0	0				224 ± 0	167 ± 0
XI	1964	2	1.36	236 ± 8	235 ± 8	0				236 ± 8	235 ± 8
XII											
XIII											
XIV											
Totals		147				138					
Means ± S.D.		191 ± 15		118 ± 34			192 ± 17		118 ± 36	192 ± 16	118 ± 35

Sex Composition 51.6 % Males and 48.4 % Females

Average Maturity Code = 2.06

Average Nematode Frequency Code = 1.76

Appendix Table 1 continued.

Carroll Inlet, 101-44
 11-25-74
 Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D.	Length mm	Weight gm	Frequency No.	Mean ± S.D.	Length mm	Weight gm	Length mm	Weight gm
II	1973	0				2	1.05	147 ± 1	41 ± 2	147 ± 1	41 ± 2
III	1972	10	5.41	168 ± 11	67 ± 12	14	7.37	169 ± 5	68 ± 11	169 ± 8	67 ± 11
IV	1971	47	25.41	185 ± 10	93 ± 11	49	25.79	187 ± 15	95 ± 11	186 ± 13	94 ± 11
V	1970	109	58.92	193 ± 10	108 ± 18	99	52.11	194 ± 10	104 ± 20	194 ± 10	106 ± 19
VI	1969	4	2.16	215 ± 22	154 ± 20	14	7.37	207 ± 15	131 ± 32	209 ± 17	136 ± 32
VII	1968	10	5.41	212 ± 13	148 ± 32	10	5.26	218 ± 16	161 ± 30	215 ± 14	155 ± 32
VIII	1967	5	2.70	220 ± 7	161 ± 17	1	0.53	228 ± 0	176 ± 0	221 ± 7	164 ± 16
IX	1966	0				1	0.53	257 ± 0	221 ± 0	257 ± 0	221 ± 0
X	1965										
XI	1964										
XII	1963										
XIII	1962										
XIV											
Totals		185				190					
Means ± S.D.			192 ± 15		107 ± 26		192 ± 17		104 ± 29	192 ± 16	106 ± 27

Sex Composition 49.3% Males and 50.7% Females

Average Maturity Code = 2.69

Average Nematode Frequency Code = 1.96

Appendix Table 1 continued.

Carroll Inlet, 101-44
11-17-74
Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D. % Length mm	Weight gm		Frequency No.	Mean ± S.D. % Length mm	Weight gm		Length mm	Weight gm
I	1974	1	0.61	89 ± 0	7 ± 0	0				89 ± 0	7 ± 0
II	1973	4	2.44	140 ± 3	33 ± 3	2	1.21	135 ± 12	35 ± 9	138 ± 8	34 ± 6
III	1972	17	10.37	169 ± 11	59 ± 13	17	10.30	161 ± 12	62 ± 15	165 ± 13	61 ± 14
IV	1971	44	26.83	189 ± 8	92 ± 15	46	27.88	184 ± 15	94 ± 28	187 ± 12	93 ± 23
V	1970	78	47.56	196 ± 10	104 ± 20	73	44.24	189 ± 12	105 ± 25	192 ± 11	104 ± 22
VI	1969	7	4.27	205 ± 7	116 ± 14	8	4.85	210 ± 13	145 ± 28	208 ± 11	131 ± 26
VII	1968	8	4.88	214 ± 17	145 ± 33	6	3.64	218 ± 10	167 ± 29	216 ± 14	154 ± 33
VIII	1967	2	1.22	231 ± 1	178 ± 8	7	4.24	210 ± 24	151 ± 52	214 ± 23	157 ± 47
IX	1966	2	1.22	238 ± 1	222 ± 8	4	2.42	222 ± 9	195 ± 21	227 ± 11	204 ± 21
X	1965	1	0.61	197 ± 0	113 ± 0	1	0.61	225 ± 0	184 ± 0	211 ± 14	149 ± 35
XI	1964	0				1	0.61	238 ± 0	211 ± 0	238 ± 0	211 ± 0
XII											
XIII											
XIV											
Totals		164			165						
Means ± S.D.			191 ± 19	99 ± 32			188 ± 21	106 ± 40	190 ± 20	102 ± 37	

Sex Composition 49.8 % Males and 50.2 % Females

Average Maturity Code = 3.22

Average Nematode Frequency Code = 1.83

Appendix Table 1 continued.

George Inlet, 101-46
10-5-75
Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Percentage %	Length mm	Weight gm	Frequency No.	Percentage %	Length mm	Weight gm	Length mm	Weight gm
II	1973	0				1	0.57	173 ± 0	71 ± 0	173 ± 0	71 ± 0
III	1972	4	2.37	167 ± 4	65 ± 4	13	7.39	168 ± 10	66 ± 14	168 ± 9	65 ± 12
IV	1971	36	21.30	188 ± 11	98 ± 17	39	22.16	186 ± 8	96 ± 21	187 ± 10	97 ± 19
V	1970	94	55.62	193 ± 12	104 ± 16	90	51.14	195 ± 11	107 ± 20	194 ± 12	105 ± 18
VI	1969	10	5.92	199 ± 13	109 ± 20	12	6.82	206 ± 16	127 ± 28	203 ± 16	119 ± 27
VII	1968	11	6.51	214 ± 13	143 ± 32	17	9.66	219 ± 10	153 ± 31	217 ± 11	149 ± 32
VIII	1967	11	6.51	225 ± 36	152 ± 24	3	1.70	223 ± 7	172 ± 16	225 ± 32	156 ± 24
IX	1966	1	0.59	206 ± 0	132 ± 0	1	0.57	225 ± 0	174 ± 0	216 ± 9	153 ± 21
X	1965	1	0.59	230 ± 0	187 ± 0	0				230 ± 0	187 ± 0
XI	1964	0				0					
XII	1963	1	0.59	208 ± 0	141 ± 0	0				208 ± 0	141 ± 0
XIII											
XIV											
Totals		169				176					
Means ± S.D.			195 ± 18		109 ± 26			194 ± 16	108 ± 31	195 ± 17	109 ± 28

Sex Composition 49.0 % Males and 51.0 % Females

Average Maturity Code = 2.42

Average Nematode Frequency Code = 1.89

George Inlet, 101-46
11-12-75
Herring Purse Seine

Appendix Table 1 continued.

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D.	Length mm	Weight gm	Frequency No.	Mean ± S.D.	Length mm	Weight gm	Length mm	Weight gm
II	1973	1	0.6	155 ± 0	45 ± 0	5	2.9	148 ± 2	43 ± 2	149 ± 3	43 ± 2
III	1972	7	4.0	170 ± 13	69 ± 20	14	8.0	172 ± 8	69 ± 10	171 ± 10	69 ± 14
IV	1971	9	5.1	186 ± 10	104 ± 31	22	12.6	179 ± 20	82 ± 25	181 ± 18	88 ± 29
V	1970	47	26.9	199 ± 8	114 ± 16	29	16.7	199 ± 9	116 ± 20	199 ± 8	115 ± 18
VI	1969	76	43.4	204 ± 10	127 ± 21	67	38.5	209 ± 12	138 ± 26	206 ± 11	132 ± 24
VII	1968	10	5.7	221 ± 14	160 ± 34	8	4.5	221 ± 15	158 ± 35	221 ± 14	159 ± 34
VIII	1967	7	4.0	232 ± 10	193 ± 16	12	6.9	234 ± 9	201 ± 25	233 ± 10	198 ± 23
IX	1966	13	7.4	230 ± 9	188 ± 21	12	6.9	239 ± 9	213 ± 22	234 ± 10	200 ± 25
X	1965	3	1.7	237 ± 6	214 ± 6	3	1.7	240 ± 12	217 ± 30	239 ± 10	216 ± 22
XI	1964	1	0.6	235 ± 0	201 ± 0	1	0.6	228 ± 0	201 ± 0	232 ± 3	201 ± 0
XII	1963	1	0.6	242 ± 0	219 ± 0	1	0.6	228 ± 0	212 ± 0	245 ± 3	216 ± 3
XIII											
XIV											
Totals				175				174			
Means ± S.D.				205 ± 17	131 ± 37			204 ± 25	131 ± 50	204 ± 21	131 ± 44

Sex Composition 50.1 % Males and 49.9 % Females

Average Maturity Code = 2.50

Average Nematode Frequency Code = 1.81

Appendix Table 1 continued.

George Inlet, 101-46
 2-12-75
 Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.	Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.
II											
III	1972	13	7.47	172 ± 5	71 ± 7	12 7.64	171 ± 6	67 ± 8	172 ± 6	69 ± 8	
IV	1971	38	21.84	182 ± 10	83 ± 12	35 22.29	183 ± 8	87 ± 13	183 ± 9	85 ± 12	
V	1970	82	47.13	188 ± 9	94 ± 16	75 47.77	189 ± 8	98 ± 14	189 ± 9	96 ± 15	
VI	1969	20	11.49	195 ± 13	106 ± 19	18 11.46	195 ± 17	112 ± 32	195 ± 15	109 ± 26	
VII	1968	12	6.90	209 ± 16	136 ± 34	10 6.37	205 ± 11	129 ± 22	207 ± 14	133 ± 30	
VIII	1967	8	4.60	211 ± 12	146 ± 22	4 2.55	224 ± 8	177 ± 9	215 ± 12	156 ± 24	
IX	1966	1	0.57	214 ± 0	142 ± 0	3 1.91	206 ± 12	134 ± 26	208 ± 11	136 ± 23	
X											
XI											
XII											
XIII											
XIV											
Totals		174				157					
Means ± S.D.		189 ± 14		97 ± 25			190 ± 14		99 ± 26	189 ± 14	98 ± 25

Sex Composition 52.6 % Males and 47.4 % Females

Average Maturity Code = 2.93

Average Nematode Frequency Code = 1.91

Appendix Table 1 continued.

Ward Cove, 101-48
2-18-75
Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Percentage %	Mean ± S.D. Length mm	Weight gm	Frequency No.	Percentage %	Mean ± S.D. Length mm	Weight gm	Mean ± S.D. Length mm	Weight gm
II											
III	1972	56	31.64	164 ± 7	60 ± 9	37	21.02	170 ± 7	70 ± 9	166 ± 8	64 ± 10
IV	1971	50	28.25	177 ± 9	80 ± 15	38	21.59	181 ± 7	87 ± 14	179 ± 9	83 ± 15
V	1970	58	32.77	184 ± 9	89 ± 14	84	47.73	187 ± 11	97 ± 23	186 ± 10	93 ± 20
VI	1969	3	1.69	202 ± 2	110 ± 18	3	1.70	191 ± 15	114 ± 39	197 ± 12	112 ± 31
VII	1968	7	3.95	206 ± 9	132 ± 18	10	5.68	204 ± 17	135 ± 39	205 ± 14	134 ± 32
VIII	1967	2	1.13	210 ± 2	158 ± 0	1	0.57	222 ± 0	174 ± 0	214 ± 6	163 ± 8
IX	1966	0				3	1.70	216 ± 8	153 ± 23	216 ± 8	153 ± 23
X	∞ 1965	1	0.56	212 ± 0	120 ± 0	0				212 ± 0	120 ± 0
XI											
XII											
XIII											
XIV											
Totals		177				176					
Means ± S.D.			178 ± 14		80 ± 23			184 ± 14		93 ± 28	
										181 ± 15	
											86 ± 26

Sex Composition 50.1% Males and 49.9% Females

Average Maturity Code = 2.76

Average Nematode Frequency Code = 1.94

Appendix Table 1 continued.

Helm Bay, 101-91
4-16-76
Set Gillnet

PERCENT AGE COMPOSITION

Age Group	Year Class	Males			Females			Sexes Combined	
		Frequency No.	Mean ± S.D. Length mm	Weight gm	Frequency No.	Mean ± S.D. Length mm	Weight gm	Length mm	Weight gm
II									
III									
IV	1971	2	2.1	230 ± 20		145 ± 26			
V	1970	19	19.8	213 ± 8		120 ± 12			
VI	1969	41	42.7	217 ± 9		129 ± 21			
VII	1968	14	14.6	213 ± 8		122 ± 18			
VIII	1967	11	11.5	226 ± 10		141 ± 22			
IX	1966	8	8.3	229 ± 10		148 ± 17			
X	1965	0							
XI	1964	1	1.0	239 ± 0		190 ± 0			
XII									
XIII									
XIV									
Totals		96							
Means ± S.D.			218 ± 11		130 ± 21				SAME AS MALES

Sex Composition 100.0% Males and 0.0 % Females

Average Maturity Code = 4.56

Average Nematode Frequency Code = 1.67

Kasaan, 102-60
4-29-76
Set Gillnet

Appendix Table 1 continued.

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.	Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.
II											
III											
IV											
V	1970	13	12.3	208 ± 6	126 ± 10	13	7.9	215 ± 5	136 ± 10	212 ± 6	131 ± 11
VI	1969	58	54.7	215 ± 7	136 ± 13	92	56.1	216 ± 7	143 ± 14	215 ± 7	140 ± 14
VII	1968	18	17.0	219 ± 8	145 ± 18	35	21.3	217 ± 10	148 ± 17	217 ± 9	147 ± 17
VIII	1967	11	10.4	217 ± 9	142 ± 15	14	8.5	218 ± 11	151 ± 25	218 ± 10	147 ± 21
IX	1966	2	1.9	221 ± 5	139 ± 8	8	4.9	223 ± 5	164 ± 14	222 ± 5	159 ± 16
X ♂	1965	3	2.8	220 ± 8	151 ± 19	2	1.2	220 ± 4	162 ± 9	222 ± 7	155 ± 17
XI	1964	0			0						
XII	1963	0			0						
XIII	1962	1	0.9	212 ± 0	138 ± 0	0				212 ± 0	138 ± 0
XIV											
Totals		106				164					
Means ± S.D.				215 ± 8	137 ± 15				216 ± 8	145 ± 17	216 ± 8
											142 ± 17

Sex Composition 39.3 % Males and 60.7 % Females

Average Maturity Code = 4.88

Average Nematode Frequency Code = 1.52

Appendix Table 1 continued.

Bocas de Finas, 103-87
 2-10-75
 Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D. Length mm	Weight gm		Frequency No.	Mean ± S.D. Length mm	Weight gm		Length mm	Weight gm
I	1974	1	0.57	222 ± 0	177 ± 0	0				222 ± 0	177 ± 0
II	1973	0				0					
III	1972	0				0					
IV	1971	20	11.43	183 ± 7	97 ± 26	20	13.25	191 ± 18	113 ± 34	187 ± 14	105 ± 31
V	1970	40	22.86	192 ± 8	109 ± 15	39	25.83	198 ± 11	122 ± 26	195 ± 10	115 ± 22
VI	1969	25	14.29	200 ± 10	123 ± 21	19	12.58	203 ± 13	131 ± 32	201 ± 12	127 ± 27
VII	1968	39	22.29	204 ± 9	138 ± 21	25	16.56	208 ± 11	144 ± 24	206 ± 10	140 ± 23
VIII	1967	23	13.14	210 ± 10	152 ± 22	20	13.25	205 ± 16	147 ± 36	208 ± 13	150 ± 30
IX	1966	18	10.29	214 ± 10	162 ± 32	18	11.92	216 ± 15	164 ± 32	215 ± 13	163 ± 32
X	1965	9	5.14	212 ± 13	158 ± 33	10	6.62	215 ± 13	156 ± 28	214 ± 13	157 ± 31
XI											
XII											
XIII											
XIV											
Totals		175			151						
Means ± S.D.			201 ± 13	130 ± 31			204 ± 16	136 ± 34	202 ± 15	133 ± 33	

Sex Composition 53.7% Males and 46.3 % Females

Average Maturity Code = 3.51

Average Nematode Frequency Code = 2.18

Boca de Finas, 103-81
 2-5-76
 Herring Purse Seine

Appendix Table 1 continued.

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Frequency %	Length mm	Weight gm	Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.	Mean ± S.D.
II											
III											
IV	1971	1	1.0	206 ± 0	128 ± 0	0				206 ± 0	128 ± 0
V	1970	8	7.7	203 ± 8	129 ± 12	12	11.1	206 ± 14	134 ± 24	205 ± 12	132 ± 20
VI	1969	12	11.5	210 ± 8	145 ± 18	15	13.9	220 ± 6	159 ± 12	215 ± 9	153 ± 17
VII	1968	23	22.1	219 ± 9	157 ± 19	34	31.5	223 ± 9	168 ± 21	222 ± 9	163 ± 21
VIII	1967	26	25.0	225 ± 8	176 ± 21	21	19.4	229 ± 7	181 ± 23	227 ± 8	178 ± 22
IX	1966	20	19.2	232 ± 7	186 ± 14	12	11.1	235 ± 7	191 ± 18	233 ± 7	188 ± 16
X	1965	5	4.8	228 ± 3	181 ± 7	10	9.3	233 ± 8	193 ± 17	232 ± 7	189 ± 15
XI	1964	5	4.8	241 ± 3	196 ± 15	3	2.8	233 ± 7	196 ± 12	238 ± 6	196 ± 14
XII	1963	4	3.8	237 ± 5	200 ± 14	1	0.9	234 ± 0	196 ± 0	236 ± 4	199 ± 13
XIII											
XIV											
Totals		104				108					
Means ± S.D.				223 ± 13	168 ± 26			225 ± 12	171 ± 27	224 ± 12	170 ± 26

Sex Composition 49.1 % Males and 50.9 % Females

Average Maturity Code = 3.30

Average Nematode Frequency Code = 2.81

El Capitan, 103-90
1-30-76
Herring Purse Seine

Appendix Table 1 continued.

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean %	Length mm	Weight gm	Frequency No.	Mean %	Length mm	Weight gm	Length mm	Weight gm
II	1973	1	0.6	158 ± 0	47 ± 0	3	2.1	141 ± 3	34 ± 5	146 ± 8	38 ± 7
III	1972	40	24.1	158 ± 9	53 ± 10	39	27.5	157 ± 8	54 ± 10	158 ± 9	54 ± 10
IV	1971	18	10.8	166 ± 12	63 ± 14	12	8.4	168 ± 16	69 ± 24	167 ± 14	65 ± 19
V	1970	66	39.8	173 ± 10	73 ± 13	54	38.0	174 ± 12	75 ± 16	173 ± 11	74 ± 14
VI	1969	18	10.8	181 ± 9	85 ± 11	14	9.9	179 ± 11	85 ± 14	180 ± 10	85 ± 12
VII	1968	8	4.8	184 ± 9	88 ± 13	6	4.2	185 ± 4	89 ± 6	184 ± 8	89 ± 11
VIII	1967	2	1.2	187 ± 3	91 ± 6	6	4.2	201 ± 10	111 ± 15	197 ± 11	106 ± 16
IX	1966	7	4.2	193 ± 6	107 ± 7	5	3.5	197 ± 10	91 ± 13	190 ± 8	100 ± 13
X	1965	4	2.4	188 ± 8	101 ± 6	1	0.7	185 ± 0	85 ± 0	188 ± 7	98 ± 8
XI	1964	2	1.2	190 ± 9	106 ± 1	2	1.4	187 ± 3	92 ± 2	188 ± 6	99 ± 7
XII											
XIII											
XIV											
Totals		166				142					
Means ± S.D.			171 ± 14		72 ± 19			171 ± 16	72 ± 21	171 ± 15	72 ± 20

Sex Composition 53.9% Males and 46.1% Females

Average Maturity Code = 2.35

Average Nematode Frequency Code = 1.37

Appendix Table 1 continued.

Mossman & Burnett Inlet
106-22
1-31-75
Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males			Females			Sexes Combined					
		Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.	Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.		
II													
III	1972	35	21.21	162 ± 9	64 ± 12	28 16.37	168 ± 9	69 ± 11	165 ± 9	66 ± 12			
IV	1971	38	23.03	176 ± 10	85 ± 17	39 22.81	179 ± 11	91 ± 19	178 ± 10	88 ± 18			
V	1970	49	29.70	180 ± 10	89 ± 16	58 33.92	187 ± 10	99 ± 18	184 ± 11	94 ± 18			
VI	1969	16	9.70	184 ± 11	96 ± 21	19 11.11	191 ± 16	109 ± 30	188 ± 14	103 ± 27			
VII	1968	11	6.67	190 ± 13	107 ± 32	19 11.11	202 ± 11	129 ± 19	197 ± 13	121 ± 27			
VIII	1967	13	7.88	202 ± 9	124 ± 18	7 4.09	205 ± 11	139 ± 23	203 ± 10	129 ± 22			
IX	1966	2	1.21	211 ± 14	138 ± 27	1 0.58	222 ± 0	175 ± 0	215 ± 13	150 ± 28			
X 1/2	1965	1	0.61	210 ± 0	156 ± 0	0			210 ± 0	156 ± 0			
XI													
XII													
XIII													
XIV													
Totals		165				171							
Means ± S.D.			179 ± 15		88 ± 25		185 ± 15		99 ± 27		182 ± 16		94 ± 27

Sex Composition 49.1% Males and 50.9% Females

Average Maturity Code = 2.44

Average Nematode Frequency Code = 1.51

Appendix Table 1 continued.

Scow Bay, 106-44
11-16-74
Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Frequency %	Length mm	Weight gm	Frequency No.	Frequency %	Length mm	Weight gm	Length mm	Weight gm
II											
III	1972	3	1.89	160 ± 7	62 ± 8	4	2.41	172 ± 17	76 ± 20	167 ± 15	70 ± 18
IV	1971	53	33.33	175 ± 13	89 ± 21	39	23.49	175 ± 9	90 ± 21	175 ± 11	89 ± 21
V	1970	21	13.21	185 ± 10	107 ± 17	11	6.63	183 ± 14	97 ± 19	184 ± 11	104 ± 18
VI	1969	20	12.58	193 ± 12	121 ± 21	19	11.45	200 ± 13	128 ± 31	196 ± 13	124 ± 27
VII	1968	21	13.21	201 ± 15	142 ± 32	29	17.47	205 ± 14	144 ± 29	203 ± 15	143 ± 30
VIII	1967	13	8.18	198 ± 11	139 ± 24	16	9.64	205 ± 14	142 ± 26	202 ± 13	141 ± 25
IX	1966	9	5.66	199 ± 11	144 ± 23	16	9.64	220 ± 16	184 ± 34	213 ± 17	169 ± 36
X	1965	5	3.14	209 ± 9	156 ± 23	15	9.04	214 ± 16	166 ± 33	212 ± 15	164 ± 31
XI	1964	10	6.29	213 ± 14	163 ± 32	9	5.42	216 ± 15	176 ± 35	215 ± 15	169 ± 34
XII	1963	2	1.26	229 ± 19	205 ± 45	3	1.81	236 ± 17	201 ± 28	233 ± 18	203 ± 36
XIII	1962	1	0.63	211 ± 0	160 ± 0	4	2.41	225 ± 14	184 ± 34	222 ± 14	179 ± 32
XIV	1961	1	0.63	202 ± 0	156 ± 0	1	0.60	222 ± 0	187 ± 0	212 ± 10	172 ± 15
Totals		159				166					
Means ± S.D.		189 ± 19		118 ± 37		199 ± 22		134 ± 45		194 ± 21	
Average Maturity Code =	2.29					Average Nematode Frequency Code =	1.63				

Sex Composition 48.9 % Males and 51.1 % Females

Average Maturity Code = 2.29

Average Nematode Frequency Code = 1.63

Scow Bay, 106-44
1-12-76
Herring Purse Seine

Appendix Table 1 continued.

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D. Length mm	Weight gm		Frequency No.	Mean ± S.D. Length mm	Weight gm		Length mm	Weight gm
II											
III	1972	1	0.6	174 ± 0	74 ± 0	1	0.6	166 ± 0	68 ± 0	170 ± 4	71 ± 3
IV	1971	7	4.1	178 ± 3	79 ± 12	7	4.0	189 ± 10	96 ± 16	184 ± 9	87 ± 16
V	1970	66	39.0	190 ± 14	99 ± 22	73	41.7	189 ± 9	97 ± 16	189 ± 11	98 ± 19
VI	1969	29	17.2	197 ± 12	114 ± 23	34	19.4	199 ± 14	114 ± 28	198 ± 13	114 ± 26
VII	1968	13	7.7	206 ± 12	132 ± 28	19	10.9	204 ± 11	125 ± 26	205 ± 12	128 ± 27
VIII	1967	18	10.6	209 ± 12	138 ± 32	15	8.6	211 ± 14	137 ± 31	209 ± 13	138 ± 31
IX	1966	13	7.7	206 ± 17	134 ± 34	11	6.3	219 ± 10	157 ± 24	212 ± 16	145 ± 32
X	1965	10	5.9	215 ± 13	151 ± 29	7	4.0	217 ± 20	152 ± 39	216 ± 16	151 ± 33
XI	1964	6	3.6	221 ± 11	163 ± 19	4	2.3	205 ± 13	120 ± 23	215 ± 14	146 ± 29
XII	1963	1	0.6	226 ± 0	172 ± 0	1	0.6	235 ± 0	194 ± 0	231 ± 4	183 ± 11
XIII	1962	1	0.6	215 ± 0	167 ± 0	2	1.1	220 ± 5	180 ± 26	218 ± 5	175 ± 22
XIV	1961	3	1.8	208 ± 6	140 ± 15	1	0.6	226 ± 0	175 ± 0	213 ± 10	149 ± 20
Totals		169			175						
Means ± S.D.		198 ± 17		117 ± 33		199 ± 16		115 ± 32	199 ± 16	116 ± 33	

Sex Composition 49.1 % Males and 50.9 % Females

Average Maturity Code = 2.77

Average Nematode Frequency Code = 1.61

Appendix Table 1 continued.

Menefee Inlet, 107-20
3-31-75
Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males			Females			Sexes Combined					
		Frequency No.	Mean ± S.D.	Length mm	Weight gm	Frequency No.	Mean ± S.D.	Length mm	Weight gm	Length mm	Weight gm		
II													
III	1972	10	5.95	158 ± 9	53 ± 12	7	4.05	170 ± 11	65 ± 10	163 ± 11	58 ± 13		
IV	1971	34	20.24	177 ± 13	81 ± 19	35	20.24	184 ± 9	91 ± 15	180 ± 12	86 ± 18		
V	1970	57	33.93	189 ± 12	95 ± 22	66	38.15	191 ± 8	101 ± 17	190 ± 10	98 ± 20		
VI	1969	27	16.07	191 ± 11	104 ± 23	28	16.18	195 ± 11	107 ± 23	193 ± 11	106 ± 23		
VII	1968	21	12.50	201 ± 17	122 ± 30	19	10.98	203 ± 14	123 ± 31	202 ± 16	122 ± 30		
VIII	1967	13	7.74	212 ± 7	142 ± 16	7	4.05	209 ± 11	131 ± 22	211 ± 9	138 ± 19		
IX	1966	2	1.19	215 ± 3	146 ± 11	9	5.20	220 ± 10	158 ± 20	219 ± 9	156 ± 19		
X ~	1965	2	1.19	218 ± 3	147 ± 12	1	0.58	222 ± 0	189 ± 0	219 ± 3	161 ± 22		
XI	1964	1	0.60	211 ± 0	133 ± 0	1	0.58	228 ± 0	186 ± 0	220 ± 9	160 ± 26		
XII	1963	1	0.60	230 ± 0	200 ± 0	0				230 ± 0	200 ± 0		
XIII													
XIV													
Totals		168				173							
Means ± S.D.			189 ± 18		100 ± 32		193 ± 15		106 ± 28		191 ± 17		103 ± 30

Sex Composition 49.3 % Males and 50.7 % Females

Average Maturity Code = 2.72

Average Nematode Frequency Code = 1.38

Appendix Table 1 continued.

Deer Island, 107-21
10-8-74
Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined		
		Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.	Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.	
II												
III	1972	3	2.27	188 ± 30	113 ± 57		0			188 ± 30	113 ± 57	
IV	1971	6	4.55	197 ± 8	125 ± 17		2	1.45	172 ± 6	80 ± 8	191 ± 13	114 ± 25
V	1970	32	24.24	195 ± 15	128 ± 32		35	25.36	190 ± 12	105 ± 23	192 ± 14	116 ± 30
VI	1969	13	9.85	203 ± 19	137 ± 38		24	17.39	203 ± 14	133 ± 26	203 ± 16	135 ± 30
VII	1968	34	25.76	221 ± 11	182 ± 23		37	26.81	215 ± 12	166 ± 27	218 ± 12	174 ± 26
VIII	1967	21	15.91	217 ± 13	180 ± 25		21	15.22	216 ± 12	173 ± 31	216 ± 13	176 ± 29
IX	1966	15	11.36	228 ± 11	191 ± 20		10	7.25	220 ± 9	182 ± 24	225 ± 11	187 ± 22
X	1965	6	4.55	226 ± 6	194 ± 17		6	4.35	224 ± 10	202 ± 31	225 ± 8	198 ± 25
XI	1964	2	1.52	211 ± 21	162 ± 60		2	1.45	226 ± 8	205 ± 19	218 ± 17	183 ± 49
XII	1963	0					1	0.72	220 ± 0	195 ± 0	220 ± 0	195 ± 0
XIII												
XIV												
Totals		132				138						
Means ± S.D.		211 ± 19		161 ± 40			207 ± 17		148 ± 41		209 ± 18	
Average Maturity Code =	2.37										154 ± 41	

Sex Composition 48.9 % Males and 51.1 % Females

Average Maturity Code = 2.37

Average Nematode Frequency Code = 1.62

Deer Island, 107-21
10-23-75
Herring Purse Seine

Appendix Table 1 continued.

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	%	Length mm	Weight gm	Frequency No.	%	Length mm	Weight gm	Length mm	Weight gm
II											
III	1972	1	0.7	179 ± 0	74 ± 0	1	0.7	167 ± 0	61 ± 0	173 ± 6	68 ± 7
IV	1971	22	15.3	194 ± 9	107 ± 19	19	13.5	195 ± 15	109 ± 29	194 ± 12	108 ± 25
V	1970	29	20.1	205 ± 10	131 ± 23	24	17.0	207 ± 8	128 ± 18	206 ± 9	130 ± 21
VI	1969	45	31.2	215 ± 11	149 ± 28	52	36.9	215 ± 14	148 ± 31	215 ± 13	149 ± 30
VII	1968	17	11.8	228 ± 8	180 ± 24	23	16.3	225 ± 13	174 ± 34	226 ± 11	177 ± 30
VIII	1967	20	13.9	225 ± 15	174 ± 37	12	8.5	232 ± 8	187 ± 27	227 ± 13	179 ± 34
IX	1966	6	4.2	230 ± 6	196 ± 11	4	2.8	241 ± 11	201 ± 23	234 ± 10	198 ± 17
X ♂	1965	1	0.7	232 ± 0	213 ± 0	2	1.4	222 ± 5	169 ± 7	225 ± 6	183 ± 22
XI	1964	3	2.1	236 ± 5	206 ± 9	3	2.1	241 ± 16	219 ± 54	239 ± 12	213 ± 39
XII	1963	0				1	0.7	250 ± 0	196 ± 0	250 ± 0	196 ± 0
XIII											
XIV											
Totals			144			141					
Means ± S.D.				214 ± 16	149 ± 38			215 ± 18	150 ± 40	214 ± 17	150 ± 39

Sex Composition 50.5 % Males and 49.5 % Females

Average Maturity Code = 2.78

Average Nematode Frequency Code = 1.53

Appendix Table 1 continued.

Anita Bay, 107-31
12-10-74
Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Frequency %	Length mm	Weight gm	Frequency No.	Frequency %	Length mm	Weight gm	Length mm	Weight gm
II											
III	1972	3	1.50	187 ± 12	109 ± 30	5	2.86	187 ± 12	104 ± 21	187 ± 12	106 ± 25
IV	1971	57	28.50	195 ± 18	123 ± 35	44	25.14	199 ± 15	127 ± 30	197 ± 17	125 ± 33
V	1970	32	16.00	200 ± 15	131 ± 29	31	17.71	202 ± 13	128 ± 24	201 ± 15	129 ± 27
VI	1969	44	22.00	201 ± 15	135 ± 25	51	29.14	198 ± 16	122 ± 29	199 ± 15	128 ± 28
VII	1968	31	15.50	202 ± 15	131 ± 33	16	9.14	209 ± 14	143 ± 32	204 ± 15	135 ± 33
VIII	1967	21	10.50	196 ± 18	123 ± 36	13	7.43	203 ± 13	135 ± 30	199 ± 16	127 ± 34
IX	1966	8	4.00	206 ± 22	146 ± 46	9	5.14	197 ± 16	120 ± 29	202 ± 20	132 ± 40
X	1965	3	1.50	204 ± 12	129 ± 26	6	3.43	195 ± 17	113 ± 28	198 ± 16	118 ± 28
XI	1964	0			0					0	
XII	1963	1	0.50	222 ± 0	153 ± 0	0				222 ± 0	153 ± 0
XIII											
XIV											
Totals		200				175					
Means ± S.D.		199 ± 17		129 ± 33			200 ± 15		126 ± 30		199 ± 16
											128 ± 31

Sex Composition 53.3% Males and 46.7% Females

Average Maturity Code = 2.22

Average Nematode Frequency Code = 1.48

Anita Bay, 107-31
11-4-75
Herring Purse Seine

Appendix Table 1 continued.

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency		Mean ± S.D.		Frequency		Mean ± S.D.		Mean ± S.D.	
		No.	%	Length mm	Weight gm	No.	%	Length mm	Weight gm	Length mm	Weight gm
II											
III	1972	3	2.4	169 ± 8	72 ± 7	1	0.7	190 ± 0	88 ± 0	174 ± 11	76 ± 9
IV	1971	22	17.9	179 ± 15	85 ± 20	24	17.5	180 ± 10	82 ± 14	180 ± 12	84 ± 17
V	1970	31	25.2	188 ± 10	102 ± 19	38	27.7	192 ± 14	106 ± 26	190 ± 12	104 ± 23
VI	1969	28	22.8	199 ± 12	120 ± 23	33	24.1	200 ± 12	119 ± 26	200 ± 12	119 ± 25
VII	1968	14	11.4	210 ± 13	136 ± 26	15	11.0	206 ± 14	127 ± 24	208 ± 13	132 ± 25
VIII	1967	3	2.4	199 ± 14	112 ± 27	14	11.0	221 ± 12	146 ± 25	218 ± 15	140 ± 28
IX	1966	8	6.5	222 ± 12	156 ± 23	3	2.2	228 ± 7	170 ± 16	224 ± 11	159 ± 22
X	1965	5	4.1	222 ± 14	171 ± 32	1	0.7	216 ± 0	140 ± 0	221 ± 13	166 ± 31
XI	1964	6	4.9	230 ± 8	185 ± 21	4	2.9	220 ± 16	156 ± 39	226 ± 13	173 ± 33
XII	1963	3	2.4	230 ± 2	159 ± 8	0				230 ± 2	159 ± 8
XIII	1962	0				2	1.5	216 ± 3	163 ± 28	216 ± 3	163 ± 28
XIV	1961	0				1	0.7	222 ± 0	157 ± 0	220 ± 0	157 ± 0
Totals						137					
Means ± S.D.				198 ± 20	118 ± 36			199 ± 18	116 ± 33	199 ± 19	117 ± 34

Sex Composition 47.3% Males and 52.7% Females

Average Maturity Code = 2.22

Average Nematode Frequency Code = 1.24

Appendix Table 1 continued.

Port Camden, 109-43
 11-26-74
 Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.	Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.
II											
III	1972	2	1.17	163 ± 6	56 ± 2	4	2.27	166 ± 8	61 ± 11	165 ± 8	59 ± 9
IV	1971	61	35.67	178 ± 14	78 ± 18	64	36.36	177 ± 11	78 ± 19	178 ± 13	78 ± 18
V	1970	4	2.34	203 ± 7	122 ± 14	5	2.84	187 ± 11	96 ± 20	194 ± 12	107 ± 22
VI	1969	9	5.26	189 ± 13	94 ± 18	8	4.55	191 ± 17	97 ± 29	190 ± 15	96 ± 24
VII	1968	43	25.15	197 ± 14	112 ± 25	43	24.43	203 ± 16	124 ± 31	200 ± 16	118 ± 29
VIII	1967	11	6.43	208 ± 24	134 ± 49	9	5.11	213 ± 24	154 ± 44	210 ± 24	143 ± 48
IX	1966	19	11.11	214 ± 19	150 ± 40	19	10.80	211 ± 18	137 ± 32	212 ± 18	144 ± 36
X	1965	22	12.87	214 ± 15	149 ± 27	22	12.50	222 ± 20	164 ± 40	218 ± 18	156 ± 35
XI	1964	0				1	0.57	245 ± 0	204 ± 0	245 ± 0	204 ± 0
XII	1963	0				1	0.57	228 ± 0	174 ± 0	228 ± 0	174 ± 0
XIII											
XIV											
Totals		171				176					
Means ± S.D.		194 ± 21		109 ± 39			196 ± 23		113 ± 44	195 ± 22	111 ± 42

Sex Composition 49.3% Males and 50.7% Females

Average Maturity Code = 2.61

Average Nematode Frequency Code = 1.39

Pt. Camden, 109-43

11-7-75

Appendix Table 1 continued.

Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D. Length mm	Weight gm		Frequency No.	Mean ± S.D. Length mm	Weight gm		Length mm	Weight gm
II											
III	1972	0				1	1.2	210 ± 0	132 ± 0	210 ± 0	132 ± 0
IV	1971	1	1.4	209 ± 0	142 ± 0	3	3.5	197 ± 10	116 ± 29	200 ± 10	123 ± 28
V	1970	16	21.6	197 ± 16	118 ± 26	14	16.5	195 ± 12	112 ± 20	196 ± 14	115 ± 24
VI	1969	3	4.0	204 ± 25	149 ± 53	5	5.9	200 ± 7	127 ± 21	202 ± 17	135 ± 38
VII	1968	4	5.4	230 ± 7	188 ± 15	4	4.7	208 ± 12	145 ± 14	219 ± 15	167 ± 26
VIII	1967	12	16.2	220 ± 16	173 ± 34	18	21.2	228 ± 18	189 ± 42	225 ± 18	182 ± 40
IX	1966	12	16.2	224 ± 14	179 ± 35	11	12.9	233 ± 16	200 ± 38	228 ± 16	189 ± 38
X	1965	11	14.9	228 ± 13	186 ± 33	14	16.5	235 ± 15	203 ± 41	232 ± 15	196 ± 39
XI	1964	15	20.3	239 ± 12	224 ± 36	14	16.5	237 ± 15	207 ± 32	238 ± 13	216 ± 35
XII	1963	0				1	1.2	212 ± 0	162 ± 0	212 ± 0	162 ± 0
XIII											
XIV											
Totals		74				85					
Means ± S.D.			220 ± 21	174 ± 48			222 ± 22	174 ± 50	221 ± 21	174 ± 49	

Sex Composition 46.5 % Males and 53.5 % Females

Average Maturity Code = 2.41

Average Nematode Frequency Code = 1.41

Appendix Table 1 continued.

Port Houghton, 110-34
 1-4-75
 Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D. % Length mm	Weight gm		Frequency No.	Mean ± S.D. % Length mm	Weight gm		Length mm	Weight gm
II											
III	1972	2	1.18	177 ± 5	87 ± 3	2	0.99	171 ± 3	77 ± 9	174 ± 5	82 ± 8
IV	1971	27	15.98	180 ± 10	97 ± 27	32	15.84	184 ± 15	102 ± 30	182 ± 13	100 ± 29
V	1970	11	6.51	189 ± 14	111 ± 30	11	5.45	186 ± 11	110 ± 24	188 ± 13	110 ± 27
VI	1969	20	11.83	194 ± 12	126 ± 25	23	11.39	198 ± 12	131 ± 26	196 ± 12	129 ± 26
VII	1968	60	35.50	206 ± 14	157 ± 32	84	41.58	207 ± 13	153 ± 29	207 ± 13	154 ± 30
VIII	1967	19	11.24	209 ± 14	158 ± 34	13	6.44	207 ± 11	147 ± 23	208 ± 12	154 ± 30
IX	1966	15	8.88	206 ± 8	150 ± 18	27	13.37	214 ± 13	165 ± 24	211 ± 12	160 ± 23
X	1965	12	7.10	210 ± 11	165 ± 27	5	2.48	207 ± 11	152 ± 27	209 ± 11	161 ± 28
XI	1964	2	1.18	209 ± 7	158 ± 15	4	1.98	225 ± 11	202 ± 21	220 ± 12	187 ± 28
XII	1963	1	0.59	231 ± 0	201 ± 0	1	0.50	212 ± 0	185 ± 0	222 ± 9	193 ± 8
XIII											
XIV											
Totals		169			202						
Means ± S.D.		200 ± 17		140 ± 38		202 ± 17		142 ± 36		201 ± 17	141 ± 37

Sex Composition 45.6 % Males and 54.4 % Females

Average Maturity Code = 2.99

Average Nematode Frequency Code = 1.72

Appendix Table 1 continued.

Port Houghton, 110-34
3-5-75
Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D. % Length mm	Weight gm		Frequency No.	Mean ± S.D. % Length mm	Weight gm		Length mm	Weight gm
II											
III	1972	3	1.72	168 ± 7	58 ± 8	3	1.81	170 ± 2	78 ± 5	169 ± 6	68 ± 12
IV	1971	24	13.79	177 ± 10	82 ± 19	14	8.43	173 ± 11	87 ± 31	176 ± 10	84 ± 24
V	1970	7	4.02	190 ± 12	108 ± 28	5	3.01	195 ± 12	121 ± 28	192 ± 12	113 ± 29
VI	1969	21	12.07	200 ± 9	128 ± 22	23	13.86	200 ± 12	136 ± 25	200 ± 11	133 ± 24
VII	1968	76	43.68	204 ± 10	138 ± 22	65	39.16	206 ± 12	143 ± 28	205 ± 11	141 ± 25
VIII	1967	14	8.05	205 ± 10	148 ± 19	19	11.45	207 ± 10	149 ± 21	206 ± 10	148 ± 20
IX	1966	10	5.75	206 ± 11	142 ± 26	14	8.43	209 ± 10	150 ± 23	208 ± 11	147 ± 25
X ♂	1965	13	7.47	206 ± 13	147 ± 30	15	9.04	216 ± 12	165 ± 19	211 ± 14	156 ± 26
XI	1964	3	1.72	212 ± 1	148 ± 9	5	3.01	212 ± 6	150 ± 12	212 ± 5	149 ± 11
XII	1963	3	1.72	213 ± 5	147 ± 9	3	1.81	208 ± 14	152 ± 24	211 ± 11	149 ± 19
XIII											
XIV											
Totals			174			166					
Means ± S.D.			199 ± 15		129 ± 32		203 ± 16		139 ± 32	201 ± 15	201 ± 15

Sex Composition 51.2% Males and 48.8% Females

Average Maturity Code = 3.62

Average Nematode Frequency Code = 1.80

Appendix Table 1 continued.

Seymour Canal, 111-14
5-14-75
Beach Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D. Length mm	Weight gm		Frequency No.	Mean ± S.D. Length mm	Weight gm		Length mm	Weight gm
II											
III	1972	6	3.51	160 ± 10		45 ± 10		51 ± 13		161 ± 12	48 ± 12
IV	1971	53	30.99	164 ± 11		50 ± 13		56 ± 19		164 ± 10	53 ± 16
V	1970	18	10.53	173 ± 13		62 ± 15		71 ± 15		175 ± 12	66 ± 16
VI	1969	19	11.11	186 ± 8		72 ± 11		83 ± 18		186 ± 9	76 ± 15
VII	1968	31	18.13	186 ± 14		76 ± 17		99 ± 26		190 ± 15	87 ± 24
VIII	1967	20	11.70	191 ± 10		81 ± 14		103 ± 23		194 ± 12	92 ± 22
IX	1966	16	9.36	199 ± 13		90 ± 18		115 ± 27		204 ± 17	102 ± 26
X	1965	5	2.92	207 ± 6		112 ± 18		107 ± 19		207 ± 7	108 ± 18
XI	1964	2	1.71	206 ± 3		109 ± 12		120 ± 14		206 ± 4	117 ± 15
XII	1963	0				2 ± 1.26		154 ± 11		221 ± 10	154 ± 11
XIII	1962	0				1 ± 0.63		169 ± 0		219 ± 0	169 ± 0
XIV	1961	1	0.58	224 ± 0		157 ± 0				224 ± 0	157 ± 0
Totals		171				159					
Means ± S.D.			180 ± 18		69 ± 23		185 ± 22		85 ± 33	182 ± 20	77 ± 29

Sex Composition 51.8 % Males and 48.2 % Females

Average Maturity Code = 6.21

Average Nematode Frequency Code = 1.06

Appendix Table 1 continued.

Seymour Canal, 111-14
5-9-76
Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D. Length mm	Weight gm		Frequency No.	Mean ± S.D. Length mm	Weight gm		Length mm	Weight gm
II											
III											
IV	1971	13	8.2	187 ± 12	85 ± 15	11	7.1	188 ± 13	91 ± 18	187 ± 13	88 ± 16
V	1970	28	17.7	190 ± 13	93 ± 19	29	18.7	190 ± 13	91 ± 21	190 ± 13	92 ± 20
VI	1969	16	10.1	196 ± 18	100 ± 28	23	14.8	194 ± 15	100 ± 29	195 ± 16	100 ± 29
VII	1968	20	12.7	206 ± 11	123 ± 25	17	11.0	207 ± 18	129 ± 35	207 ± 15	126 ± 30
VIII	1967	29	18.4	210 ± 17	127 ± 30	25	16.1	208 ± 14	126 ± 27	209 ± 16	126 ± 29
IX	1966	19	12.0	216 ± 14	142 ± 29	21	13.6	211 ± 15	134 ± 33	213 ± 15	138 ± 31
X	1965	15	9.5	212 ± 13	142 ± 32	15	9.7	217 ± 24	136 ± 33	214 ± 19	139 ± 32
XI	1964	10	6.3	211 ± 9	128 ± 19	12	7.7	215 ± 16	140 ± 34	213 ± 14	135 ± 29
XII	1963	4	2.5	225 ± 20	164 ± 45	1	0.6	219 ± 0	161 ± 0	224 ± 18	163 ± 40
XIII	1962	4	2.5	201 ± 16	119 ± 36	0				201 ± 16	119 ± 36
XIV	1961	0				1	0.6	231 ± 0	176 ± 0	231 ± 0	176 ± 0
Totals		158				155					
Means ± S.D.			204 ± 18	118 ± 34			203 ± 19	117 ± 35	203 ± 18	118 ± 34	

Sex Composition 50.5 % Males and 49.5 % Females

Average Maturity Code = 4.55

Average Nematode Frequency Code = 1.31

Appendix Table 1 continued.

Outside Douglas Is., 111-40
 4-22-75
 Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D. Length mm	Weight gm		Frequency No.	Mean ± S.D. Length mm	Weight gm		Length mm	Weight gm
II											
III	1972	2	1.16	187 ± 1		72 ± 3	1	0.65	172 ± 0	80 ± 0	182 ± 7
IV	1971	7	4.05	185 ± 8		77 ± 13	5	3.23	181 ± 3	76 ± 7	183 ± 7
V	1970	17	9.83	196 ± 10		93 ± 18	8	5.16	201 ± 5	107 ± 9	198 ± 9
VI	1969	18	10.40	209 ± 12		120 ± 24	26	16.77	215 ± 10	135 ± 23	212 ± 12
VII	1968	83	47.98	212 ± 11		128 ± 21	74	47.74	215 ± 14	136 ± 29	214 ± 12
VIII	1967	24	13.87	214 ± 7		133 ± 24	21	13.55	224 ± 7	156 ± 23	219 ± 9
IX	1966	10	5.78	220 ± 15		143 ± 28	12	7.74	223 ± 7	154 ± 25	222 ± 12
X	1965	7	4.05	225 ± 17		161 ± 35	2	1.29	221 ± 17	147 ± 23	224 ± 17
XI	1964	2	1.16	219 ± 7		139 ± 9	5	3.23	230 ± 12	163 ± 18	227 ± 12
XII	1963	1	0.58	220 ± 0		166 ± 0	0				220 ± 0
XIII	1962	1	0.58	225 ± 0		227 ± 0	0				225 ± 0
XIV	1961	1	0.58	210 ± 0		132 ± 0	0				210 ± 0
XV	1960	0					1	0.65	240 ± 0	220 ± 0	240 ± 0
Totals		173				155					
Means ± S.D.			210 ± 14		125 ± 29			215 ± 15		138 ± 31	
										213 ± 14	
											131 ± 31

Sex Composition 52.7 % Males and 47.3 % Females

Average Maturity Code = 5.12

Average Nematode Frequency Code = 1.70

Appendix Table 1 continued.

Auke Bay, Eagle River, 111-51
 5-12-75
 Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.	Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.
II	1973	1	0.57	153 ± 0	44 ± 0	0				153 ± 0	44 ± 0
III	1972	47	26.86	168 ± 10	56 ± 9	38	21.97	169 ± 9	61 ± 10	169 ± 9	59 ± 10
IV	1971	99	56.57	175 ± 10	65 ± 12	92	53.18	177 ± 10	70 ± 12	176 ± 10	67 ± 12
V	1970	12	6.86	186 ± 12	81 ± 16	12	6.94	186 ± 14	83 ± 19	186 ± 13	82 ± 18
VI	1969	8	4.57	190 ± 7	87 ± 11	19	10.98	195 ± 11	98 ± 16	194 ± 10	94 ± 16
VII	1968	6	3.43	217 ± 21	124 ± 28	8	4.62	196 ± 15	95 ± 21	205 ± 21	108 ± 28
VIII	1967	2	1.14	201 ± 10	103 ± 11	4	2.31	202 ± 14	104 ± 12	201 ± 13	103 ± 12
IX	63										
X	69										
XI											
XII											
XIII											
XIV											
Totals		175				173					
Means ± S.D.			176 ± 15		67 ± 19			179 ± 14		74 ± 18	
										178 ± 14	
											70 ± 19

Sex Composition 50.3% Males and 49.7% Females

Average Maturity Code = 4.88

Average Nematode Frequency Code = 1.04

Appendix Table 1 continued.

Tenakee Inlet, 112-45
 11-18-74
 Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.	Frequency No.	Frequency %	Length mm	Weight gm	Mean ± S.D.
II											
III	1972	13	6.99	169 ± 12	74 ± 14		8	4.17	163 ± 11	66 ± 14	167 ± 12
IV	1971	60	32.26	177 ± 7	89 ± 17		49	25.52	182 ± 10	89 ± 15	179 ± 9
V	1970	22	11.83	188 ± 12	105 ± 22		24	12.50	189 ± 13	103 ± 21	188 ± 12
VI	1969	40	21.51	183 ± 11	96 ± 18		26	13.54	183 ± 10	91 ± 19	183 ± 11
VII	1968	44	23.66	183 ± 13	101 ± 22		72	37.50	184 ± 12	94 ± 22	184 ± 12
VIII	1967	3	1.61	196 ± 8	111 ± 12		7	3.65	186 ± 13	97 ± 25	189 ± 13
IX	1966	3	1.61	191 ± 7	106 ± 12		1	0.52	184 ± 0	84 ± 0	189 ± 7
X ♂	1965	0					4	2.08	193 ± 5	105 ± 20	193 ± 5
XI	1964	1	0.54	209 ± 0	143 ± 0		1	0.52	200 ± 0	112 ± 0	205 ± 4
XII											
XIII											
XIV											
Totals				186			192				
Means ± S.D.				181 ± 12	95 ± 21		184 ± 12	93 ± 21	182 ± 12	94 ± 21	

Sex Composition 49.2% Males and 50.8% Females

Average Maturity Code = 1.90

Average Nematode Frequency Code = 1.17

Appendix Table 1 continued.

Freshwater Bay, 112-50
 10-15-74
 Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males			Females			Sexes Combined	
		Frequency No.	Mean ± S.D. Length mm	Weight gm	Frequency No.	Mean ± S.D. Length mm	Weight gm	Mean ± S.D. Length mm	Weight gm
II									
III	1972	10	6.02	170 ± 9	72 ± 12	9	4.43	177 ± 6	78 ± 10
IV	1971	65	39.16	181 ± 9	88 ± 14	54	26.60	181 ± 10	88 ± 14
V	1970	26	15.66	189 ± 8	101 ± 18	31	15.27	194 ± 11	111 ± 16
VI	1969	31	18.67	189 ± 11	105 ± 20	43	21.18	190 ± 11	103 ± 18
VII	1968	28	16.87	190 ± 9	105 ± 15	56	27.59	189 ± 12	104 ± 22
VIII	1967	4	2.41	198 ± 9	115 ± 20	4	1.97	190 ± 12	101 ± 21
IX	1966	1	0.60	195 ± 0	111 ± 0	4	1.97	201 ± 16	116 ± 25
X	1965	0				2	0.99	193 ± 8	97 ± 21
XI	1964	1	0.60	214 ± 0	121 ± 0	0			
XII									
XIII									
XIV									
Totals		166			203				
Means ± S.D.			185 ± 11	96 ± 19		188 ± 12	100 ± 20	186 ± 12	98 ± 20

Sex Composition 45.0 % Males and 55.0 % Females

Average Maturity Code = 1.92

Average Nematode Frequency Code = 1.18

Appendix Table 1 continued.

Sitka, 113-41
 4-16-75
 Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D. Length mm	Weight gm		Frequency No.	Mean ± S.D. Length mm	Weight gm		Length mm	Weight gm
II											
III	1972	26	15.20	182 ± 14	75 ± 25	13	7.34	187 ± 10	79 ± 11	184 ± 13	76 ± 21
IV	1971	19	11.11	192 ± 9	86 ± 14	11	6.21	188 ± 6	84 ± 10	190 ± 8	85 ± 13
V	1970	91	53.22	204 ± 10	107 ± 18	97	54.80	206 ± 9	120 ± 17	205 ± 9	114 ± 19
VI	1969	22	12.87	208 ± 11	119 ± 21	38	21.47	210 ± 12	123 ± 25	209 ± 12	121 ± 24
VII	1968	10	5.85	207 ± 12	115 ± 29	14	7.91	217 ± 16	139 ± 33	213 ± 16	129 ± 34
VIII	1967	3	1.75	216 ± 15	129 ± 13	4	2.26	229 ± 16	171 ± 39	224 ± 17	153 ± 37
IX											
X	42										
XI											
XII											
XIII											
XIV											
Totals		171			177						
Means ± S.D.		200 ± 14		102 ± 25		206 ± 14		118 ± 27		203 ± 14	
											110 ± 27

Sex Composition 49.1% Males and 50.9% Females

Average Maturity Code = 4.68

Average Nematode Frequency Code = 2.22

Appendix Table 1 continued.

Bridgett Cove, Sunset Cove
115-11
4-24-75
Herring Purse Seine

PERCENT AGE COMPOSITION

Age Group	Year Class	Males				Females				Sexes Combined	
		Frequency No.	Mean ± S.D. % Length mm	Weight gm		Frequency No.	Mean ± S.D. % Length mm	Weight gm		Length mm	Weight gm
II											
III	1972	1	0.59	205 ± 0	102 ± 0	0				205 ± 0	102 ± 0
IV	1971	6	3.55	207 ± 16	119 ± 33	8	5.37	203 ± 15	102 ± 22	205 ± 16	109 ± 28
V	1970	17	10.06	209 ± 11	117 ± 24	10	6.71	210 ± 9	118 ± 20	209 ± 11	117 ± 22
VI	1969	20	11.83	214 ± 12	128 ± 32	21	14.09	214 ± 12	129 ± 27	214 ± 12	129 ± 29
VII	1968	87	51.48	215 ± 10	134 ± 23	71	47.65	221 ± 12	144 ± 25	218 ± 11	138 ± 24
VIII	1967	23	13.61	214 ± 10	130 ± 26	25	16.78	218 ± 13	140 ± 29	216 ± 12	135 ± 28
IX	1966	8	4.73	213 ± 15	128 ± 31	3	2.01	217 ± 8	129 ± 20	214 ± 13	128 ± 28
X	1965	5	2.96	218 ± 14	135 ± 38	4	2.68	209 ± 11	118 ± 23	214 ± 13	128 ± 33
XI	1964	0				5	3.36	246 ± 13	192 ± 16	246 ± 13	192 ± 16
XII	1963	0				0			0		
XIII	1962	2	1.18	212 ± 8	135 ± 15	1	0.67	193 ± 0	75 ± 0	206 ± 11	115 ± 31
XIV	1961	0				0			0		
XV	1960	0				1	0.67	216 ± 0	140 ± 0	216 ± 0	140 ± 0
Totals		169			149						
Means ± S.D.			214 ± 11	130 ± 26			218 ± 14	137 ± 30	216 ± 13	133 ± 28	

Sex Composition 53.1% Males and 46.9% Females

Average Maturity Code = 5.10

Average Nematode Frequency Code = 1.52

Sitka-Sitka Sound, 113-41
 4-16-76
 Herring Purse Seine

Appendix Table 1 continued.

PERCENT AGE COMPOSITION

Age Group	Year Class	Males			Females			Sexes Combined	
		Frequency No.	Mean ± S.D. Length mm	Weight gm	Frequency No.	Mean ± S.D. Length mm	Weight gm	Mean ± S.D. Length mm	Weight gm
II									
III	1972	6	2.5	181 ± 5	72 ± 12	3	1.3	182 ± 9	75 ± 10
IV	1971	43	18.2	201 ± 8	96 ± 15	37	15.6	203 ± 7	105 ± 14
V	1970	41	17.4	209 ± 12	111 ± 21	34	14.4	210 ± 10	122 ± 21
VI	1969	116	49.2	215 ± 9	124 ± 20	125	52.7	216 ± 9	134 ± 21
VII	1968	26	11.0	220 ± 8	131 ± 19	27	11.4	218 ± 11	143 ± 24
VIII	1967	3	1.3	231 ± 6	150 ± 13	7	3.0	222 ± 15	151 ± 34
IX	1966	1	0.4	234 ± 0	168 ± 0	4	1.7	236 ± 10	170 ± 16
X									
XI									
XII									
XIII									
XIV									
Totals		236			237				
Means ± S.D.		211 ± 12		117 ± 24		213 ± 12		129 ± 25	
								212 ± 12	
									123 ± 25

Sex Composition 49.9 % Males and 50.1 % Females

Average Maturity Code = 4.91

Average Nematode Frequency Code = 2.42

Appendix Table 2. Summary of percent age composition by age group, 1970-1976.

BULLHEAD COVE, KIRK POINT, KAH SHAKES COVE (101-25)

PERCENT AGE COMPOSITION

Sample Year	Period	Gear	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	Total Frequency
1970																		
1971	16	20	0.0	0.0	8.3	43.3	14.4	21.1	7.2	3.9	0.6	1.1	0.0	0.0	0.0	0.0	180	
1972																		
1973																		
1974																		
1975																		
1976	14	4	0.0	0.0	0.0	1.6	21.3	45.9	22.1	4.9	4.1	0.0	0.0	0.0	0.0	0.0	122	
	14	20	0.0	0.0	0.4	1.3	17.4	60.4	11.3	6.5	2.2	0.4	0.0	0.0	0.0	0.0	230	

Appendix Table 2 continued.

SMUGGLER'S COVE (101-26)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

KWAIN BAY, CASCADE INLET (101-40)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

BOLD ISLAND, NADZAHEEN, MOTH COVE (101-42)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

THORNE ARM (101-43)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

CARROLL INLET (101-44)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

GEORGE INLET (101-46)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

TONGASS NARROWS (101-47)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

WARD COVE (101-48)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

HELM BAY (101-91)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

KASAAN (102-60)

PERCENT AGE COMPOSITION

Sample Year	Period	Gear	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	Total Frequency
1970																		
1971	19	2	0.0	0.0	11.3	60.4	14.2	8.5	3.8	0.9	0.9	0.0	0.0	0.0	0.0	0.0	106	
1972																		
1973																		
1974																		
1975																		
1976	18	4	0.0	0.0	0.0	0.0	9.6	55.6	19.6	9.3	3.7	1.8	0.0	0.0	0.4	0.0	270	

Appendix Table 2 continued.

McFARLAND ISLAND (103-41)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

CRAIG (103-60)
PERCENT AGE COMPOSITION

Appendix Table 2 continued.

TONOWEK AND NOSSAK BAY (103-80)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

BOCAS DE FINAS (103-81)

PERCENT AGE COMPOSITION

Sample Year	Period	Gear	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	Total Frequency
1970																		
1971																		
1972																		
1973																		
1974																		
1975	7	11	0.0	0.0	0.0	12.3	24.2	13.5	19.6	13.2	11.0	5.8	0.3	0.0	0.0	0.0	326	
1976	6	11	0.0	0.0	0.0	0.5	9.4	12.7	26.9	22.2	15.1	7.1	3.8	2.4	0.0	0.0	212	

Appendix Table 2 continued.

EL CAPITAN (103-90)

PERCENT AGE COMPOSITION

Sample Year	Period	Gear	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	Total Frequency
1970																		
1971																		
1972																		
1973																		
1974																		
1975																		
1976		5	11	0.0	1.3	25.6	9.7	39.0	10.4	4.6	2.6	3.9	1.6	1.3	0.0	0.0	308	

Appendix Table 1 continued.

SARHEEN (103-95)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

MOSSMAN AND BURNETT INLET (106-22)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

BURNETT INLET (106-23)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

ROCKY BAY (106-24)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

SCOW BAY (106-44)

PERCENT AGE COMPOSITION

Sample Year	Period	Gear	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	Total Frequency
1970																		
1971																		
1972	3	11	0.0	1.6	18.6	31.2	16.3	12.2	13.7	3.8	1.3	0.7	0.4	0.1	0.1	0.0	706	
1973	8	11	0.0	0.0	23.9	17.2	18.6	12.0	4.4	15.4	3.7	1.6	1.2	1.4	0.2	0.5	0.0	435
1974	46	11	0.0	0.0	2.2	28.3	9.8	12.0	15.4	8.9	7.7	6.2	5.8	1.5	1.5	0.6	0.0	325
1975																		
1976	3	11	0.0	0.0	0.6	4.1	40.4	18.3	9.3	9.6	7.0	4.9	2.9	0.6	0.9	1.2	0.0	344

Appendix Table 2 continued.

MENEFEE INLET (107-20)

PERCENTAGE COMPOSITION

Appendix Table 2 continued.

DEER ISLAND (107-21)

PERCENT AGE COMPOSITION

Sample Year	Period	Gear	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	Total Frequency
1970																		
1971	12	1	0.0	0.0	12.6	53.8	13.8	11.1	6.6	1.6	0.2	0.2	0.0	0.0	0.0	0.0	485	
1972	13	11	0.0	0.3	2.9	21.9	43.0	12.1	11.5	6.6	1.3	0.3	0.1	0.1	0.0	0.0	1045	
	50	11	0.0	1.7	29.1	4.6	23.0	27.7	6.3	4.0	2.9	0.6	0.0	0.0	0.0	0.0	347	
1973																		
1974	6	11	0.0	0.0	1.3	27.9	7.0	28.7	21.9	5.7	4.4	2.4	0.3	0.3	0.0	0.0	383	
	41	11	0.0	0.0	1.1	3.0	24.8	13.7	26.3	15.6	9.3	4.4	1.5	0.4	0.0	0.0	270	
1975	43	11	0.0	0.0	0.7	14.4	18.6	34.0	14.0	11.2	3.5	1.0	2.1	0.4	0.0	0.0	285	

Appendix Table 2 continued.

ANITA BAY (107-31)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

PORT CAMDEN (109-43)

PERCENT AGE COMPOSITION

Sample Year	Period	Gear	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	Total Frequency
1970																		
1971																		
1972																		
1973	43	11	0.0	0.0	0.0	0.8	6.0	36.7	9.7	12.4	32.6	1.9	0.0	0.0	0.0	0.0	267	
1974	48	11	0.0	0.0	1.7	36.0	2.6	4.9	24.8	5.8	11.0	12.7	0.3	0.3	0.0	0.0	347	
1975	46	11	0.0	0.0	0.6	2.5	18.9	5.0	5.0	18.9	14.5	15.7	18.2	0.6	0.0	0.0	159	
1976																		

Appendix Table 2 continued.

WASHINGTON BAY (109-51)
PERCENT AGE COMPOSITION

Appendix Table 2 continued.

TEBENKOF BAY (109-62)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

FARRAGUT BAY (110-14)

PERCENTAGE COMPOSITION

Appendix Table 2 continued.

PORT HOUGHTON (110-34)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

SEYMORE CANAL (111-14)

PERCENT AGE COMPOSITION

Sample Year	Period	Gear	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	Total Frequency
1970																		
1971	17	1	0.0	0.0	2.6	4.5	14.2	39.8	12.6	10.4	8.1	4.1	2.0	1.2	0.2	0.2	492	
1972	20	11	0.0	0.2	2.2	25.0	13.0	20.4	23.0	6.5	4.5	3.7	1.4	0.4	0.2	0.0	509	
1973	18	11	0.0	0.0	0.0	2.7	18.7	11.8	17.0	36.2	6.3	3.3	1.7	1.3	0.2	0.9	459	
1974	19	11	0.0	0.0	4.4	6.1	7.8	20.1	10.9	21.5	22.2	4.1	1.0	1.7	0.0	0.0	293	
1975	20	2	101	0.0	4.3	30.0	10.6	8.5	17.0	11.8	9.4	4.6	2.7	0.6	0.3	0.3	330	
1976	20	11	0.0	0.0	0.0	7.7	18.2	12.5	11.8	17.2	12.8	9.6	7.0	1.6	1.3	0.3	313	

Appendix Table 2 continued.

OUTSIDE DOUGLAS ISLAND (111-40)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

II AUKE BAY, EAGLE RIVER (111-51)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

CARR'S POUND (111-52)

PERCENT AGE COMPOSITION

Sample Year	Period	Gear	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	Total Frequency
1970																		
1971	18	10	0.0	2.5	65.8	20.6	3.4	2.8	1.5	1.5	0.6	0.9	0.0	0.3	0.0	0.0	325	
1972	23	10	0.0	2.3	20.5	56.3	13.5	2.9	2.1	1.0	0.8	0.4	0.0	0.2	0.0	0.0	483	
1973																		
1974																		
1975																		
1976																		

Appendix Table 2 continued.

TENAKEE INLET (112-45)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

FRESHWATER BAY (112-50)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

WEST CRAWFISH INLET (113-32)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

EASTERN CHANNEL (113-46)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

LISIANSKI INLET (113-95)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

BRIDGET COVE, SUNSET COVE (115-11)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

SITKA (113-41)

PERCENT AGE COMPOSITION

Sample Year	Period	Gear	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	Total Frequency
1970																		
1971																		
1972																		
1973																		
1974	15	11	0.0	0.6	3.8	72.6	9.3	6.0	3.2	2.4	0.8	1.1	0.0	0.3	0.0	0.0	521	
	16	11	0.0	0.0	1.9	71.9	10.6	8.4	2.6	1.6	1.0	0.6	0.6	0.6	0.0	0.0	310	
1975	16	11	0.0	0.0	11.2	8.6	54.0	17.2	6.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0	348	
1976	17	11	0.0	0.0	1.9	16.9	15.9	51.0	11.2	2.1	1.1	0.0	0.0	0.0	0.0	0.0	473	

Appendix Table 2 continued.

NAKWASINA BAY (113-43)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

KATLIAN BAY (113-44)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

YAKUTAT BAY (183-10)

PERCENT AGE COMPOSITION

Appendix Table 2 continued.

CHICAGO HARBOR (183-11)

PERCENT AGE COMPOSITION

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